



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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DRAFT issued for Public Hearing and Public Comment
Draft Prevention of Significant Deterioration (PSD) Permit
Application No. NE-14-013
Transmittal No.: X259947

MATEP Limited Partnership
474 Brookline Avenue
Boston, MA 02215

14.4 Megawatt Combined Heat and Power Project

Pursuant to the provisions of the Clean Air Act (CAA) Chapter I, Part C (42 U.S.C. Section 7470 *et seq.*), the regulations found at the Code of Federal Regulations Title 40, Section 52.21, and the Agreement for Delegation of the Federal Prevention of Significant Deterioration Program, dated April 2011, by the United States Environmental Protection Agency, Region 1 (EPA) to the Massachusetts Department of Environmental Protection (MassDEP), MassDEP is issuing a Prevention of Significant Deterioration (PSD) Permit to MATEP Limited Partnership (the Permittee) concerning its proposed, new 14.4 Megawatt, combustion turbine combined heat and power generating unit to be located at 474 Brookline Avenue in Boston, MA. The proposed unit will be located at the present site of the Medical Area Total Energy Plant (MATEP) combined heat and power generating facility.

The operation of the proposed combustion turbine generator unit, designated CTG-3/HRSG-300, shall be subject to the permit conditions and permit limitations set forth herein. This PSD Permit is valid only for the equipment described herein and as submitted to MassDEP on August 24, 2014 application for a PSD Permit under 40 CFR 52.21 and subsequent application submittal addenda. In accordance with 40 CFR 124.15(b), this PSD Permit shall be effective 30 days after the date of signature or, if no comments requesting a change in the Draft Permit are received, shall be effective immediately upon signature and shall remain in effect until it is surrendered to MassDEP. This Permit becomes invalid if the construction does not commence as defined in 40 CFR 52.21(b)(9) within 18 months after this PSD Permit takes effect, is discontinued for a period of 18 months or more, or is not completed within a reasonable time. Pursuant to 40 CFR 52.21, MassDEP may extend the 18 month period upon a satisfactory showing that an extension is justified. This PSD Permit does not relieve the Permittee from the obligation to comply with applicable state and federal air pollution control rules and regulations.

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Susan P. Ruch
Deputy Regional Director and Acting Permit Chief, Bureau of Air and Waste

Date Draft Issued: April 20, 2016

TABLE OF CONTENTS

I.	PROJECT DESCRIPTION (For Informational Purposes)	3
II.	EMISSION UNIT (EU) IDENTIFICATION	3
III.	OPERATIONAL, PRODUCTION and EMISSION LIMITS	4
IV.	MONITORING AND TESTING REQUIREMENTS	7
V.	RECORD KEEPING REQUIREMENTS	9
VI.	REPORTING REQUIREMENTS	11
VII.	SPECIAL TERMS AND CONDITIONS	13
VIII.	RIGHT OF ENTRY	14
IX.	TRANSFER OF OWNERSHIP	15
X.	SEVERABILITY	15
XI.	CREDIBLE EVIDENCE	15
XII.	OTHER APPLICABLE REGULATIONS	15
XIII.	AGENCY ADDRESSES	16

I. PROJECT DESCRIPTION (For Informational Purposes)

The Permittee operates the Medical Area Total Energy Plant (MATEP), which is centrally located in the 200 acre Longwood Medical Area (LMA) of Boston. MATEP is a combined heat and power (CHP) plant that supplies steam, chilled water, and electricity to LMA institutions including Boston Children's Hospital, Brigham and Women's Hospital, Beth Israel Deaconess Medical Center, Dana-Farber Cancer Institute, Harvard Medical School, Joslin Diabetes Center and other healthcare and research facilities.

The Permittee proposes to construct and operate a nominal 14.4 Megawatt (MW) Combustion Turbine Generator (CTG-3) with an integrated Duct Burner (DB) and Heat Recovery Steam Generator (HRSG-300) unit (Project), that is capable of combusting natural gas, primarily, and ultra low sulfur diesel (ULSD) as a backup fuel. The proposed unit will be housed at MATEP, which is located at 474 Brookline Avenue in Boston, Massachusetts.

II. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit identified in Table 1 is subject to and regulated by this PSD Permit:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
CTG-3/ HRSG-300	Solar Titan 130 Combustion Turbine/Heat Recovery Steam Generator integrated Duct Burner	164.6 mmBtu/hr, HHV (energy input) Natural Gas Firing	Dry Low NO _x Combustors (PCD1)
		158.8 mmBtu/hr, HHV (energy input) ULSD Firing	Selective Catalytic Reduction (PCD2)
		14.4 MW nominal (electric power output)	Oxidation Catalyst (PCD3)
		38.8 mmBtu/hr HHV (energy input) Duct Burner Natural Gas Firing	

Table 1 Key:

EU# = Emission Unit Number
mmBtu/hr = fuel heat input, million British thermal units per hour
HHV = higher heating value basis
MW = generator net electrical output
NO_x = Oxides of Nitrogen
ULSD = ultra low sulfur diesel fuel oil
CTG = combustion turbine generator
HRSG = heat recovery steam generator

III. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Project is subject to, and the Permittee shall ensure that the Project shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below, including footnotes:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
CTG-3/ HRSG-300	Operation at \geq MECL, ^(2,4) excluding start-ups and shutdowns ³ Natural Gas Firing	PM _{2.5} (without duct firing) ⁵	≤ 3.29 lb/hr ¹ ≤ 0.020 lb/mmBtu ¹
		PM ₁₀ (without duct firing) ⁵	≤ 3.29 lb/hr ¹ ≤ 0.020 lb/mmBtu ¹
	Fuel Heat Input Rate of CTG-3: ≤ 164.6 mmBtu per hour, HHV Natural Gas Firing	PM _{2.5} (with duct firing) ⁵	≤ 4.07 lb/hr ¹ ≤ 0.020 lb/mmBtu ¹
		PM ₁₀ (with duct firing) ⁵	≤ 4.07 lb/hr ¹ ≤ 0.020 lb/mmBtu ¹
	Heat Input Rate of Duct Burner: ≤ 38.8 mmBtu per hour Natural Gas Firing	Greenhouse Gases, (GHG) as CO _{2e} (without duct firing)	$\leq 19,584$ lb/hr ¹ ≤ 118.9 lb CO ₂ /mmBtu ¹ ≤ 119.0 lb CO _{2e} /mmBtu ¹
		Greenhouse Gases, (GHG) as CO _{2e} (with duct firing)	$\leq 24,200$ lb/hr ¹ ≤ 118.9 lb CO ₂ /mmBtu ¹ ≤ 119.0 lb CO _{2e} /mmBtu ¹

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
CTG-3/ HRSG-300	Operation at \geq MECL ^(2,4) excluding start-ups and shutdowns ³ ULSD Firing Fuel Heat Input Rate of CTG-3: \leq 158.8 mmBtu per hour, HHV ULSD Firing Maximum annual fuel usage for ULSD is 878,400 gallons per 12- month rolling period, which is based on 720 operating hours and a maximum firing rate of 1,220 gallons per hour. (See Special Terms and Conditions) Heat Input Rate of DB: \leq 38.8 mmBtu per hour Natural Gas Firing	PM _{2.5} (without duct firing) ⁵	\leq 5.40 lb/hr ¹ \leq 0.034 lb/mmBtu ¹
		PM ₁₀ (without duct firing) ⁵	\leq 5.40 lb/hr ¹ \leq 0.034 lb/mmBtu ¹
		PM _{2.5} (with duct firing) ⁵	\leq 6.15 lb/hr ¹ \leq 0.031 lb/mmBtu ¹
		PM ₁₀ (with duct firing) ⁵	\leq 6.15 lb/hr ¹ \leq 0.031 lb/mmBtu ¹
		Greenhouse Gases, CO _{2e} (without duct firing)	\leq 26,363 lb CO _{2e} /hr ¹ \leq 165.9 lb CO ₂ /mmBtu ¹ \leq 166.0 lb CO _{2e} /mmBtu ¹
		Greenhouse Gases, CO _{2e} (with duct firing)	\leq 31,000 lb CO _{2e} /hr ¹ \leq 165.9 lb CO ₂ /mmBtu ¹ \leq 166.0 lb CO _{2e} /mmBtu ¹
	Operation during startups ^(3,6) Natural Gas Firing Start-up duration: \leq 3.0 hours	PM _{2.5} ⁵	\leq 12.2 lb per event ⁷
		PM ₁₀ ⁵	\leq 12.2 lb per event ⁷
	Operation during shutdowns ^(3,6) Natural Gas Firing Shutdown duration: \leq 1.0 hour	PM _{2.5} ⁵	\leq 4.1 lb per event ⁷
		PM ₁₀ ⁵	\leq 4.1 lb per event ⁷
	Operation during startups ^(3,6) ULSD Firing	PM _{2.5} ⁵	\leq 18.5 lb per event ⁷

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
	Start-up duration: ≤ 3.0 hours	PM ₁₀ ⁵	≤ 18.5 lb per event ⁷
CTG-3/ HRSG-300	Operation during shutdowns ^(3,6) ULSD Firing Shutdown duration: ≤ 1.0 hour	PM _{2.5} ⁵	≤ 6.2lb per event ⁷
		PM ₁₀ ⁵	≤ 6.2 lb per event ⁷
	Operation at all load conditions, including start-ups and shutdowns Fuel Heat Input of CTG-3/ HRSG-300 ≤ 1,781,784 mmBtu, HHV per 12-month rolling period ⁸	PM _{2.5} ⁵	≤ 18.8 TPY ⁹
		PM ₁₀ ⁵	≤ 18.8 TPY ⁹
		Greenhouse Gases, CO _{2e}	≤ 108,500 TPY ⁹

Table 2 Notes:

1. Emission limits are one hour block averages. Emission limits are based on CTG-3/HRSG-300 operating at 7.4 degrees Fahrenheit ambient temperature with and without natural gas duct firing (38.8 mmBtu/hr) at a combustion turbine maximum firing rate of either 164.6 mmBtu/hr, HHV for natural gas or 158.8 mmBtu/hr, HHV for ULSD. These constitute worst case steady-state emissions.
2. The Minimum Emissions Compliance Load (MECL) is defined as the lowest operational load achievable to maintain compliance with the emission limitations following start-up, pending the completion of an MECL optimization study.
3. Start-ups shall last no longer than 3 hours beginning from the time of flame-on in the combustor (after a period of downtime) until compliance with the steady-state NO_x emission limit is achieved. Shutdowns shall last no longer than 1 hour and include the time from when ammonia injection ceases until flame-out.
4. With the exception of CO_{2e}, compliance with limits will be based on an initial compliance test at four (4) load conditions with and without duct firing that cover the entire normal operating range: the minimum emissions compliance load (MECL); 75 percent load; 85 percent load; and 100 percent load. Compliance demonstration shall be made by emissions compliance testing within 180 days after initial firing of unit. CO_{2e} will be calculated using the methodology outlined in 40 CFR Part 98.
5. Emission limit is for the sum of filterable and condensable particulate via EPA Reference Methods 201A and 202 or an equivalent test method(s) approved by MassDEP.
6. Start-up and shutdown emission limits and durations are subject to revision by MassDEP based on review of compliance data and CEMs data generated from the first year of commercial operation.
7. The startup and shutdown PM emissions are not elevated during these transient conditions; PM emission rates are consistent across all normal operating loads.
8. The total allowable fuel heat input of CTG-3/HRSG-300 during the 12-month rolling period is based on the heat input rates for CTG-3 of 164.6 mmBtu/hr and HRSG-300 of 38.8 mmBtu/hr, based on a usage of 8760 hours per year while combusting natural gas.
9. Twelve-month rolling emission limits include start-up and shut-down emissions and are based on either: a CTG-3 natural gas usage of 8040 hours per year at 164.6 mmBtu/hr and ULSD usage of 720 hours per year at 158.8 mmBtu/hr with 8760 hours per year of duct burner operation on natural gas only at a maximum heat input of 38.8 mmBtu/hr; or a CTG-3 natural gas usage of 8760 hours per year at 164.6 mmBtu/hr with 8760 hours per year of duct burner operation on natural gas only at a maximum heat input of 38.8 mmBtu/hr; whichever firing condition results in the worst case emissions rate for the specific pollutant.

Table 2 Key:

EU# = Emission Unit Number

PM₁₀ = Particulate Matter less than or equal to 10 microns in diameter

PM_{2.5} = Particulate Matter less than or equal to 2.5 microns in diameter

CO_{2e} = Greenhouse Gases expressed as Carbon Dioxide equivalent and calculated by multiplying each of the six GreenHouse Gases (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions, in tons per year, by the gas's associated global warming potential published at Table A-1 of 40 CFR Part 98, Subpart A and summing the six resultant values.

lb/hr = pounds per hour

mmBtu = million British thermal units, higher heating value (HHV) basis

lb/mmBtu = pounds per million British thermal units

TPY = tons per 12-month rolling period

CTG/HRSG = combustion turbine generator/heat recovery steam generator

ULSD = Ultra Low Sulfur Diesel Fuel Oil containing a maximum of 0.0015 weight percent sulfur

HHV = higher heating value basis

MECL = minimum emissions compliance load

< = less than

≤ = less than or equal to

≥ = greater than or equal to

IV. MONITORING AND TESTING REQUIREMENTS

Table 3	
EU#	Monitoring and Testing Requirements
CTG-3/ HRSG-300	1. The Permittee shall ensure that the Project is constructed to accommodate the emissions (compliance) testing requirements as stipulated in 40 CFR Part 60 Appendix A and Part 51 Appendix M. The two outlet sampling ports (90 degrees apart from each other) for the emission unit must be located at a minimum of one half duct diameter upstream and two duct diameters downstream of any flow disturbance. In addition, the Permittee shall facilitate access to the sampling ports and testing equipment by constructing platforms, ladders, or other necessary equipment.
	2. The Permittee shall ensure that compliance testing of the Project is completed within 180 days after initial firing of CTG-3/HRSG-300 to demonstrate compliance with the emission limits specified in Table 2 of this PSD Permit. All emissions testing shall be conducted in accordance with MassDEP's "Guidelines for Source Emissions Testing" and in accordance with EPA reference test methods as specified in 40 CFR Part 60, Appendix A, or by another method which has been approved in writing by MassDEP. The Permittee shall schedule the compliance testing such that MassDEP personnel can witness it.

Table 3	
EU#	Monitoring and Testing Requirements
	<p>3. The Permittee shall conduct initial compliance tests of the Project to document actual emissions of CTG-3/HRSG-300 so as to determine its compliance status versus the emission limits (in lb/hr and lb/mmBtu) in Table 2 for the pollutants listed below.</p> <ul style="list-style-type: none"> • PM₁₀ • PM_{2.5} • CO₂ <p>Testing for these pollutants for CTG-3/HRSG-300 shall be conducted at four (4) load conditions with and without duct firing that cover the entire normal operating range: the minimum emissions compliance load (MECL); 75 percent load; 85 percent load; and 100 percent load .</p>
CTG-3/ HRSG-300	<p>4. The above referenced emissions testing shall include parametric monitoring testing with supportive operational data compiled during the emissions testing (utilizing the facility's operations data acquisition handling system – DAHS) for PM₁₀, and PM_{2.5} emissions for CTG-3/HRSG-300.</p> <p>5. All periods of excess emissions occurring at the Project, even if attributable to an emergency/malfunction, start-up/shutdown or equipment cleaning, shall be quantified and included by the Permittee in the compilation of emissions and determination of compliance with the emission limits as stated in Table 2 of this PSD Permit. (“Excess Emissions” are defined as emissions which are in excess of the emission limits as stated in Table 2). An exceedance of emission limits in Table 2 due to an emergency or malfunction shall not be deemed a federally permitted release as that term is used in 42 U.S.C. Section 9601(10).</p> <p>6. The Permittee shall install, operate, and maintain a fuel metering device and recorder for CTG-3/HRSG-300 that records natural gas consumption in standard cubic feet (scf).</p> <p>7. The Permittee shall install, operate, and maintain a fuel metering device and recorder for CTG-3 that records ULSD consumption (for CTG-3 only) in gallons.</p> <p>8. The Permittee shall monitor fuel heat input rate (mmBtu/hr, HHV) and total fuel heat input (mmBtu per month and mmBtu per twelve month rolling period) for CTG-3/HRSG-300/DB.</p> <p>9. The Permittee shall monitor each date and daily hours of operation and total hours of operation for CTG-3/HRSG-300 per month and twelve month rolling period.</p> <p>10. The Permittee shall ensure that initial compliance tests of the Project are conducted for startup and shutdown periods as defined in this permit Emission data generated from this testing shall be made available for review by MassDEP and shall be incorporated within the compliance test report.</p> <p>11. The Permittee shall monitor the natural gas and ULSD consumption of CTG-3/HRSG-300 (Natural gas only for DB) in accordance with 40 CFR Part 60 Subpart KKKK utilizing a continuous fuel flow monitoring system.</p> <p>12. The Permittee shall monitor the sulfur content of the natural gas combusted by CTG-3/HRSG-300 in accordance with 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule developed in accordance with 40 CFR Part 60 Subpart KKKK.</p>

Table 3	
EU#	Monitoring and Testing Requirements
	13. The Permittee shall monitor the load, start-up and shutdown duration, and mass emissions (lb/event) during start-up and shutdown periods of CTG-3.
	14. The Permittee shall monitor the operation of CTG-3/HRSG-300, in accordance with the surrogate methodology or parametric monitoring developed during the most recent compliance test concerning PM ₁₀ , and PM _{2.5} emission limits.
	15. The Permittee shall monitor the sulfur content of each ULSD fuel oil delivery to be burned in CTG-3 in accordance with 40 CFR 60.4415.
	16. If and when MassDEP requires it, the Permittee shall conduct compliance testing in accordance with EPA Reference Test Methods and 310 CMR 7.13.

Table 3 Key:

EU# = Emission Unit Number

EPA = United States Environmental Protection Agency

CFR = Code of Federal Regulations

CMR = Code of Massachusetts Regulations

PM₁₀ = Particulate Matter with particle diameter less than or equal to 10 microns

PM_{2.5} = Particulate Matter with particle diameter less than or equal to 2.5 microns

CO_{2e} = Greenhouse Gases expressed as Carbon Dioxide equivalent and calculated by multiplying each of the six GreenHouse Gases (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions, in tons per year, by the gas's associated global warming potential published at Table A-1 of 40 CFR Part 98, Subpart A and summing the six resultant values.

scf = standard cubic feet

lb/hr = pounds per hour

lb/mmBtu = pounds per million British thermal units

mmBtu/hr = million British thermal units per hour

mmBtu = million British thermal units

HHV = higher heating value basis

MECL = Minimum Emissions Compliance Load

ULSD = Ultra Low Sulfur Diesel Fuel Oil containing a maximum of 0.0015 weight percent sulfur

V. RECORD KEEPING REQUIREMENTS

Table 4	
EU#	Record Keeping Requirements
CTG-3/ HRSG-300	1. The Permittee shall maintain records of the emission unit's hourly (each hour) fuel heat input rate (mmBtu/hr, HHV), total fuel heat input (mmBtu), and natural gas consumption (scf) and ULSD consumption (gal) per month and twelve month rolling period basis.
	2. The Permittee shall maintain records of each date and daily hours of operation and total hours of operation of CTG-3 per month and twelve month rolling period.
	3. The Permittee shall continuously estimate and record PM ₁₀ , and PM _{2.5} emissions on the DAHS using the surrogate methodology or parametric monitoring derived from the most recent compliance test.
	4. The Permittee shall maintain records of the load, start-up and shutdown duration, and mass emissions (lb/event) during start-up and shutdown periods of CTG-3.

Table 4	
EU#	Record Keeping Requirements
	5. The Permittee shall maintain records of the sulfur content of the natural gas and ULSD combusted by CTG-3 and DB at the frequency required pursuant to 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule developed in accordance with 40 CFR Part 60 Subpart KKKK.
CTG-3/ HRSG-300	<p>6. A record keeping system for the Project shall be established and maintained up-to-date by the Permittee such that year-to-date information is readily available. Record keeping shall, at a minimum, include:</p> <p>a) Compliance records sufficient to document actual emissions from the Project in order to determine compliance with what is allowed by this PSD Permit. Such records shall include, but are not limited to, fuel usage rates, emissions test results, monitoring equipment data and reports;</p> <p>b) Maintenance: A record of routine maintenance activities performed on the subject emission units' control equipment and monitoring equipment at the Facility including, at a minimum, the type or a description of the maintenance performed and the date(s) and time(s) the work was commenced and completed; and,</p> <p>c) Malfunctions: A record of all malfunctions on the subject emission units' control and monitoring equipment for the Project including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed.</p> <p>7. The Permittee shall maintain monthly records to demonstrate the Projects's compliance status regarding the Project's 12-month rolling emission limits (TPY) specified in Table 2. Records shall include actual emissions for the month as well as for the previous 11 months. (The MassDEP approved format can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping in Microsoft Excel format.)</p> <p>8. The Permittee shall maintain a copy of this PSD Permit, underlying Application, and the most up-to-date Standard SOMP for the emission unit and PCD(s) approved herein on-site.</p> <p>9. The Permittee shall maintain records of monitoring and testing as required by Table 3. All records required by this PSD Permit shall be kept on site for five (5) years and made available for inspection by MassDEP or EPA upon request.</p>

Table 4 Key:

EU# = Emission Unit Number
PCD = Pollution Control Device
SOMP = Standard Operating and Maintenance Procedures
EPA = United States Environmental Protection Agency
CFR = Code of federal Regulations
CMR = Code of Massachusetts Regulations

PM₁₀ = Particulate Matter with particle diameter less than or equal to 10 microns
PM_{2.5} = Particulate Matter with particle diameter less than or equal to 2.5 microns
CO_{2e} = Greenhouse Gases expressed as Carbon Dioxide equivalent and calculated by multiplying each of the six GreenHouse Gases (Carbon Dioxide, Nitrous Oxide, Methane, Hydrofluorocarbons, Perfluorocarbons, Sulfur Hexafluoride) mass amount of emissions, in tons per year, by the gas's associated global warming potential published at Table A-1 of 40 CFR Part 98, Subpart A and summing the six resultant values.
ULSD = Ultra Low Sulfur Diesel Fuel Oil containing a maximum of 0.0015weight percent sulfur
lb = pounds; scf = standard cubic foot; gal = gallons
mmBtu/hr = million British thermal units per hour
mmBtu = million British thermal units
HHV = higher heating value basis
TPY = tons per 12-month rolling period
DAHS = Data Acquisition and Handling System

VI. REPORTING REQUIREMENTS

Table 5	
EU#	Reporting Requirements
CTG-3/ HRSG-300	1. The Permittee must obtain written MassDEP approval of an emissions test protocol prior to initial compliance emissions testing of CTG-3/HRSG-300. The Permittee shall submit a pre-test protocol at least 30 days prior to the compliance emissions testing. The protocol shall include a detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for any such emissions testing. In addition, the protocol shall include procedures for a parametric monitoring strategy to ensure continuous monitoring of PM ₁₀ , and PM _{2.5} emission from CTG-3/HRSG-300.
	2. The Permittee shall submit a final emissions test results report to MassDEP within 45 days after completion of the initial compliance emissions testing program.
	3. After completion of the initial compliance emissions testing program, the Permittee shall submit information for MassDEP review that documents the actual emissions impacts generated by CTG-3 during start-up and shutdown periods. This information shall be submitted to MassDEP as part of the final emissions test results report.
	4. The Permittee shall submit, in writing, the following notifications to MassDEP within fourteen (14) days after each occurrence: a) date of commencement of construction of the CTG-3/HRSG-300; b) date when construction has been completed the CTG-3/HRSG-300; c) date of initial firing of the CTG-3/HRSG-300; d) date when the CTG-3/HRSG-300 is either ready for commercial operation or has commenced commercial operation.
	5. The Permittee shall comply with all applicable reporting requirements of 40 CFR Part 98 (Mandatory Greenhouse Gas Emissions Reporting).

Table 5	
EU#	Reporting Requirements
	6. The Permittee must notify MassDEP by telephone or fax or e-mail [nero.air@massmail.state.ma.us] as soon as possible, but in any case no later than three (3) business days after the occurrence of any upsets or malfunctions to the CTG-3/HRSG-300 equipment, air pollution control equipment, or monitoring equipment which result in an excess emission to the air and/or a condition of air pollution.
CTG-3/ HRSG-300	7. The Permittee shall submit a semi-annual report to MassDEP by July 30 and January 30 of each year to demonstrate the Project's and Facility's compliance status regarding the Facility-Wide emission limits (TPY) specified in Table 2. Reports shall include actual emissions for the previous 12 months. (The MassDEP approved format can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping in Microsoft Excel format.
	8. The Permittee shall submit to MassDEP a SOMP for CTG-3/HRSG-300 and associated control and monitoring/recording systems for the Project no later than 30 days prior to commencement of commercial operation of the unit. Thereafter, the Permittee shall submit updated versions of the SOMP to MassDEP no later than thirty (30) days prior to the occurrence of a significant change. MassDEP must approve of significant changes to the SOMP prior to the SOMP becoming effective. The updated SOMP shall supersede prior versions of the SOMP.
	9. The Permittee shall submit to MassDEP all information required by this PSD Permit over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	10. All notifications and reporting to MassDEP required by this PSD Permit shall be made to the attention of: Department of Environmental Protection/Bureau of Air and Waste 205B Lowell Street Wilmington, Massachusetts 01887 Attn: Permit Chief Phone: (978) 694-3200 Fax: (978) 694-3499 E-Mail: nero.air@massmail.state.ma.us
	11. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this PSD Permit within thirty (30) days from MassDEP's request.
	12. If and when MassDEP requires compliance testing, the Permittee shall submit to MassDEP for approval a stack emission test protocol, at least thirty (30) days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

Table 5	
EU#	Reporting Requirements
	13. If and when MassDEP requires compliance testing, the Permittee shall submit to MassDEP a final stack emission test results report, within forty five (45) days after completion of the emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

Table 5 Key:

EU# = Emission Unit Number

EPA = United States Environmental Protection Agency

CFR = Code of Federal Regulations

CMR = Code of Massachusetts Regulations

M.G.L. = Massachusetts General Laws

SOMP = Standard Operating and Maintenance Procedures

QA/QC = Quality Assurance/Quality Control

CTG = Combustion Turbine Generator

TPY = tons per 12 month rolling period

PM₁₀ = Particulate Matter with particle diameter less than or equal to 10 microns

PM_{2.5} = Particulate Matter with particle diameter less than or equal to 2.5 microns

VII. SPECIAL TERMS AND CONDITIONS

The Project is subject to, and the Permittee shall ensure that the Project shall comply with, the special terms and conditions as contained in Table 6 below:

Table 6	
EU#	Special Terms and Conditions
CTG-3/ HRSG-300	1. The Permittee shall not combust ULSD fuel unless: <ul style="list-style-type: none"> a. natural gas is curtailed by the natural gas supplier or distributor; b. instructed/mandated by the system operator, ISO New England; c. conducting emissions testing; or d. conducting required equipment maintenance and testing.
	2. The Permittee is restricted to a maximum annual fuel usage for ULSD of 878,400 gallons per 12-month rolling period for CTG-3.
	3. The Permittee shall not allow CTG-3/HRSG-300 to operate below the MECL, except for start-ups and shutdowns. Emissions during all operating conditions including start-ups and shutdowns shall be included in the 12 month rolling total limits (TPY) specified in Table 2.
	4. The Permittee shall develop as part of the Standard Operating Procedures for CTG-3/HRSG-300, an MECL optimization protocol to establish minimum operating load(s) that maintain compliance with all emission limitations.
Facility-Wide	5. The Permittee shall properly train all personnel to operate the Project and the control and monitoring equipment serving the Project in accordance with vendor specifications. All persons responsible for the operation of the Project shall sign a statement affirming that they have read and understand the approved SOMP. Refresher training shall be given by the Permittee to Project and Facility personnel at least once annually.

Table 6	
EU#	Special Terms and Conditions
	6. The Permittee shall comply with all provisions of 40 CFR Part 60, 40 CFR Part 63, 40 CFR Part 64, 40 CFR Part 68, 40 CFR Part 98, and 310 CMR 6.00 through 8.00 that are applicable to this Facility.
	7. All requirements of this PSD Permit which apply to the Permittee shall apply to all subsequent owners and/or operators of the Project and Facility.
	8. The Permittee shall comply with all applicable portions of Section 112(r) of the Clean Air Act and associated regulations at 40 CFR Part 68.

Table 6 Key:

EU# = Emission Unit Number
CFR = Code of federal regulations
CMR = Code of Massachusetts Regulations
SOMP = Standard Operating and Maintenance Procedures
TPY = tons per 12 month rolling period
MECL = Minimum Emissions Compliance Load

VIII. RIGHT OF ENTRY

The Permittee shall allow all authorized representatives of MassDEP and/or EPA, upon presentation of credentials, to enter upon or through the Facility where records required under this PSD Permit are kept. The Permittee shall allow such authorized representatives, at reasonable times:

1. To access and copy any records that must be kept under this PSD Permit;
2. To inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this PSD Permit; and
3. To monitor substances or parameters for purposes of assuring compliance with this PSD Permit.

IX. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the Project, this PSD Permit shall be binding on all subsequent owners and operators. The Permittee shall notify the succeeding owner and operator of the existence of this PSD Permit and its conditions before such change, if possible, but in no case later than 14 days after such change. Notification shall be sent by letter with a copy forwarded within 5 days to MassDEP and EPA.

X. SEVERABILITY

The provisions of this PSD Permit are severable, and if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit will not be affected thereby.

XI. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any provision of this PSD Permit, the methods used in this PSD Permit shall be used, as applicable. However, nothing in this PSD Permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the Permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.

XII. OTHER APPLICABLE REGULATIONS

The Permittee shall operate all equipment regulated herein in compliance with all other applicable provisions of federal and state air regulations.

The Permittee has addressed the PSD Environmental Justice (EJ) requirements as required by the April 11, 2011 PSD Delegation Agreement between EPA and MassDEP to “identify and address, as appropriate high and adverse human health or environmental effects of federal programs, policies and activities on minority and low income populations” in accordance with Executive Order 12898 (February 11, 1994). Additional EJ discussion is provided in the PSD Fact sheet for the MATEP LP project.

XIII. AGENCY ADDRESSES

Subject to change, all correspondence required by this PSD Permit shall be forwarded to:

Permit Chief, Bureau of Air and Waste
MassDEP - Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887